

BOSTON
BRUSSELS
CHICAGO
FRANKFURT
HAMBURG
HONG KONG
LONDON
LOS ANGELES
MILAN
MOSCOW
NEW JERSEY

Latham & Watkins

ATTORNEYS AT LAW
WWW.LW.COM

ORIGINAL

NEW YORK
NORTHERN VIRGINIA
ORANGE COUNTY
PARIS
SAN DIEGO
SAN FRANCISCO
SILICON VALLEY
SINGAPORE
TOKYO
WASHINGTON, D.C.

August 23, 2002

RECEIVED

AUG 23 2002

ORIGINAL

Marlene H. Dortch, Secretary
Federal Communications Commission
The Portals Building
445 12th Street, SW TW-A325
Washington, DC 20554

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Re: ET Docket 01-278
RM-9375; RM-10051
EX PARTE COMMUNICATION

Dear Ms. Dortch:

On August 22, 2002, on behalf of the Satellite Industry Association (the "SIA"), individuals representing the SIA (David Cavossa), Loral Space & Communications Ltd. (John Stern), Hughes Network Systems, Inc. (Joslyn Read, Steve McPhilly, and John Janka), and PanAmSat Corporation (Gonzalo de Dios) met with Marsha J. MacBride, Chief of Staff to Chairman Powell and Alan J. Scrim, Chief, Policy and Rules Division, Office of Engineering and Technology. The attached presentation materials summarize the issues discussed.

An original and five copies are enclosed.

Sincerely yours,


John P. Janka
Counsel to Hughes Network Systems, Inc.

Enclosures

cc: Marsha J. MacBride
Alan J. Scrim

SATELLITE INDUSTRY ASSOCIATION:

**WHY THE SALE OF NON-COMPLIANT RADAR DETECTORS MUST CONTINUE TO BE
FORECLOSED**

RECEIVED
AUG 23 2002
FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

1. What is now at issue.

- There is no dispute that radar detectors cause harmful interference into satellite services.
- There is no dispute over the need for the technical limits the Commission has imposed to prevent continued harmful interference from radar detectors in the 11.2-11.7 GHz band.
- For years, the satellite industry has suffered significant harm caused by radar detector interference.
- RADAR and certain retailers now argue that they would bear a disproportionate burden of the manufacturing, import, and marketing compliance schedule that the Commission imposed on non-compliant radar detectors.

2. What the satellite industry requests.

- The Commission should maintain the compliance schedule it has established for the manufacture, import, marketing and sale of non-compliant radar detectors.
 - ⇒ No extensions or waivers are appropriate
 - ⇒ The continued sale of non-compliant radar detectors would:
 - exacerbate the great harm already caused to satellite users by radar detectors
 - allow this great harm to continue for years to come

3. The record is replete with evidence that radar detectors have harmed a variety of satellite services users and providers.

- Retailers, service businesses, government agencies, satellite operators, and earth station licensees are all adversely affected by radar detectors.
- The comments and *ex parte* submissions already in the record provide ample evidence of the harm caused by radar detectors and justify the Commission's strict compliance schedule.

⇒ Attached is a brief summary of the uncontested evidence in the record

NON-COMPLIANT RADAR DETECTORS:**Disrupt a wide range of satellite communications:**

Radar detector interference affects consumers, businesses, schools, hospitals and government agencies, including law enforcement and public safety organizations, who rely on satellite communications. *See* March 12, 2002 Reply Comments of SES Americom, Inc.

Radar detector interference has been identified as the source of damage to data and video services using a variety of different Ku band earth terminals. Interference has caused data errors, video drop out and loss of data synchronization. *See* February 12, 2002 Comments of Comsearch.

Research of management system logs and trouble ticket databases show radar detector interference is widespread and growing. *See* April 22, 2002 *ex parte* submission of Spacenet, Inc. and Starband Communications, Inc.

Threaten continued viability of certain satellite services:

Radar detectors cause severe signal degradation, outages and losses of service to Muzak, which serves businesses in every county of the nation with music, messages and marketing on hold services. *Muzak therefore is unable to provide reliable service to its many customers, which places Muzak's very business at risk.* *See* June 5, 2002 *ex parte* submission of Microspace Communications Corporation.

Corruption of satellite capacity by radar detector interference threatens the integrity and competitiveness of satellite services. *The interference and the perception of network unreliability affect the competitiveness of the VSAT industry and cause customers to seek more robust alternatives.* *See* February 12, 2002 Comments of SES Americom, Inc.

Radar detectors are a continuing threat to the reliable operations of licensees that form a central element of the national information/communications infrastructure. *See* February 12, 2002 Comments of Spacenet, Inc. and StarBand Communications, Inc.

Current and prospective customers are concerned about continued viability of VSAT services. *See* May 31, 2002 *ex parte* submission of Hughes Network Systems, Inc.

Pose public safety risks:

Companies supplying hospitals and doctors with paging services receive intermittent outages that mimic the interference that radar detectors are causing to other VSAT services. *See* June 5, 2002 *ex parte* submission of Microspace Communications Corporation.

A television station and an airport FBO location (which provides private pilots with real-time graphical and text weather information), each of which relies on satellite service for up-to-date

weather information, have experienced outages directly traced to radar detectors. *See* June 5, 2002 *ex parte* submission of Microspace Communications Corporation.

Radar detector interference was determined to be cause of extended outages suffered by a law enforcement agency in McAllen, Texas, which uses a VSAT system for public safety communications. *See* March 12, 2002 Reply Comments of Hughes Network Systems, Inc.

Cause financial losses to retailers:

Chevron reports that radar detector interference frequently causes a disruption in the data flow process at its gas stations, which can result in lost or incorrect sales and/or verification information. *See* April 2, 2002 *ex parte* submission of Chevron Products Company.

Radar detector interference may render credit card and billing transactions non-operational. *See* May 31, 2002 *ex parte* submission of Hughes Network Systems, Inc.

Threaten in-orbit spacecraft:

A Whistler 1600 radar detector in a parking lot caused a tracking, telemetry and control (TT&C) antenna to lose sync with the satellite it was controlling, affecting functions that are vital to the health and welfare of the spacecraft. Any prolonged loss of communication, especially during critical commanding, can have irreparable consequences to the communications payload or spacecraft power bus, up to and including permanent loss of the spacecraft. *See* February 12, 2002 Comments of PanAmSat Corporation.

Waste leased satellite capacity:

Radar detector interference has effectively rendered unusable certain frequencies that VSAT providers have leased from satellite operators. Even if it vacates those frequencies to avoid the interference, the VSAT service provider remains obligated to pay for that capacity. And, vacating one frequency provides no assurance that the problem will not crop again in another part of the 11.7-12.2 GHz band. Trying to move its carriers to avoid the radar detector problem costs one service provider hundreds of thousands of dollars each year. *See* February 12, 2002 Comments of Hughes Network Systems, Inc.

Harm a wide range of businesses:

Record examples include:

- **Auto Parts Store (Jackson, Michigan):** VSAT service used to provide inventory control and point of purchase confirmation was disrupted by radar detector.
- **Stock Brokerage (Metropolis, Illinois):** Interference from radar detector into VSAT system caused lost data and video.
- **Car Rental Agency (Mesquite, Texas):** Business lost data packets due to interference from a radar detector.

- **Gas Stations (Raleigh, NC):** Levels of interference generated by radar detectors sufficient to cause enough errors in data received for VSAT to appear out of service or re-boot.
- **Television station:** Radar detectors determined to be source of disruption to TV station's receipt of news stories from locations throughout the United States, Puerto Rico and the U.S. Virgin Islands.
- **Remote SNG trucks:** Radar detectors identified as a source of interference into satellite news gathering trucks.

See February 12, 2002 comments of Loral Space & Communications Ltd.; February 12, 2002 Comments, March 12, 2002 Reply Comments, and May 6, 2002 *ex parte* submission of Hughes Network Systems, Inc.

Harm educational users:

College in Oregon: Radar detector caused chronic interference, during class time, and for several quarters, into VSAT system that provides video conferencing for distance learning. See February 12, 2002 Comments of SES Americom, Inc.

Impose other costs:

Significant efforts involved with monitoring, investigating, identifying and resolving cases of radar detector interference impose large operational costs on operators of satellite systems that are difficult to quantify. See February 12, 2002 Comments of the Satellite Industry Association.

August 19, 2002

SATELLITE INDUSTRY ASSOCIATION
Response to August 12, 2002 RADAR *Ex Parte*

RECEIVED

AUG 23 2002

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

1. It is critical to maintain the deadlines in the First Report and Order to protect licensed satellite users of the 11.7-12.2 GHz band.

- SIA members and other satellite operators have established on the record that radar detectors cause debilitating interference to satellite operators and satellite users in the 11.7-12.2 GHz band. The satellite operations affected by this problem support the nation's business backbone, in particular, gasoline retailers, automobile retailers, automotive service centers, hotels, retail store chains, shopping centers and any business using VSATs near major roadways and parking lots.
- By adopting its new rules, the Commission has acknowledged the severity of this harm to satellite users, service providers, manufacturers and operators nationwide. By precluding the manufacture and import of non-compliant radar detectors after August 28, 2002, and by precluding the retail sale and other marketing of non-compliant radar detectors after September 27, 2002, the Commission has taken prompt steps to prevent the situation from getting worse.
- The November 2001 NPRM (§ 14) specifically sought comment "especially from small entities, concerning the timeframe that should be required to comply with any new emission limits." No one raised any issues about the timeframe needed to comply with the proposed regulation of radar detector manufacturing, import and sale that was raised in the NPRM. In fact, not one retailer of radar detectors participated in this proceeding at any time prior to the Commission's decision. No excuse has been provided for failing to raise these issues in a timely fashion, or for failing to participate in this proceeding at an earlier stage.
- Granting RADAR's Motion for Stay or its Petition for Partial Reconsideration will continue to introduce non-compliant devices into the marketplace and would facilitate flooding the market with non-compliant radar detectors that have been conclusively demonstrated to cause harmful interference. RADAR's requested relief would exacerbate the harm already suffered by licensed users of the band because it would increase the number of non-compliant radar detectors in operation.
- Each non-compliant radar detector that is sold increases the potential for harmful interference into licensed satellite receivers for *years* into the future. Consumers use radar detectors for a number of years. Thus, any non-compliant radar detectors that continue to be sold present a continued and imminent interference threat into satellite receivers. This is why instituting a trade-in or recall program for non-compliant radar detectors that already have been sold would be an appropriate and feasible remedy – at a minimum, a recall between manufacturers and retailers is entirely reasonable.

- Radar detectors that operate anywhere in the 11.7-12.2 GHz band (not just those operating above 11.9 GHz), have been shown to cause harmful interference into satellite receivers. Testing by SIA members, other members of the satellite industry, and the Commission itself, supports this conclusion.
- Satellite users experienced interference from radar detectors well before the introduction of radar detectors that sweep above 11.9 GHz. Numerous radar detector models have been shown to sweep above 11.7 GHz with emissions levels well in excess of the Commission's Part 15 limits.

2. Continued retail sale of non-compliant radar detectors will NOT solve the interference problem:

- It is absurd for RADAR to assert that the continued retail sale of non-compliant radar detectors will mitigate interference into satellite receivers.
 - First, as explained below, RADAR's estimates in its August 12, 2002 *ex parte* about the numbers of non-compliant radar detectors are incomplete, misleading and unsubstantiated.
 - Second, even if RADAR's estimates were realistic, the requested relief would allow the retail sale of at least 100,000 more radar detectors that have been shown to generate harmful interference into satellite operations. Thus, the Commission effectively would lose control over the use of at least 100,000 radar detectors that are known to transmit at levels of up to 200 times the limits of Part 15.
- For these reasons, the Commission should affirm its decision to preclude the manufacture and import of non-compliant radar detectors after August 28, 2002, and to preclude the retail sale and other marketing of non-compliant radar detectors after September 27, 2002. Nothing in the Commission's decision precludes the continued sale of compliant radar detectors that do not pose an interference threat in the 11.7-12.2 GHz band.

Why RADAR's estimates are incomplete and misleading:

- a) RADAR's estimates do not cover all radar detector manufacturers:** RADAR does not represent all manufacturers of radar detectors sold in the U.S. Nor do its estimates reflect the estimates of all members of RADAR. Therefore, the estimates presented in its August 12, 2002 *ex parte* filing appear to understate the number of non-compliant radar detectors currently in service and planned to be manufactured in the near term.
- b) Upgraded radar detectors are not necessarily "removed" from use:** RADAR assumes that 80% of sales are upgrades that remove a non-compliant radar detector from service. Upgrades do not necessarily remove non-compliant radar detectors from the market. Used, non-compliant radar detectors can also be bought cheaply through retailers such as eBay and Amazon.com. Additionally, consumers may use

the upgraded unit in another vehicle or give it to a friend or relative.

- c) **Unreasonable to assume mass replacement of newer, non-compliant radar detectors:** As indicated in the First Report and Order, many older radar detectors operated on frequencies below the 11.7-12.2 GHz band and, therefore, did not pose an interference threat in that band. In recent years, manufacturers have begun using oscillators that operate in the 11.7-12.2 GHz band in order to avoid detection by police and to enhance their own detection of police radar.

It is intuitive that older radar detector models (that are compliant with the new rules) are more likely to be replaced than the more recent, non-compliant radar detector models. However, RADAR assumes in its August 12, 2002 *ex parte* that 400,000 compliant units (which it estimates will be sold through December 31, 2002) will replace proportionately both the compliant and the non-compliant units already in service. This is counter-intuitive---the replacement rate of older, compliant units should be higher than the replacement rate of relatively new, non-compliant units.

- d) **No accounting for the sale of non-compliant devices already in the retail chain:** RADAR's estimates are based on the radar detectors expected to be sold by manufacturers (i.e., wholesaled) after August 28, 2002. RADAR does not even attempt to address the number of non-complaint radar detectors already shipped and available for retail purchase (i.e., "in the distribution pipeline"). The attached summary of devices tested by the FCC or the satellite industry indicates that over half of those devices, which are still on the retail market, are not compliant. Only 2 months ago, RADAR represented that 27% of radar detectors being manufactured were non-complaint (RADAR now represents that number has dropped to 20%). Thus, a large number of radar detectors available for purchase today at retail stores must be non-compliant. The only means of ensuring that interfering, non-compliant devices are not put into service is to impose a deadline on the sale of non-compliant radar detectors as soon as possible. The Commission's decision was and remains correct and a necessary means to solve the interference problem.
- e) **RADAR's estimate for removal of non-compliant radar detectors is unreliable and therefore meaningless:** The faulty assumptions described above render RADAR's estimate completely meaningless. RADAR's estimate of the number of non-compliant radar detectors that will be removed from service is based on false premises and fails to consider many relevant factors. There is simply no logical basis to conclude that the continued sale of non-compliant radar detectors will actually mitigate the interference currently suffered by satellite users.

3. RADAR fails to demonstrate how implementation of the Commission's deadlines possibly could cause irreparable harm.

- By RADAR's own projection, its manufacturers are expected to ship about 100,000 non-compliant radar detectors from August 28, 2002 until December 31, 2002, or about 7% of their total expected sales for 2002. RADAR projects that at least 400,000 compliant

devices will be sold in that time period. It is unreasonable to assume that the inability to sell 100,000 non-compliant units in the U.S., and the costs relating to recalling these specific units, would cause radar detector manufacturers (who sell 1.5 million units a year) to go out of business or would disrupt business at retail chains such as Radio Shack, Best Buy, Circuit City, and Wal-Mart. This is an absurd proposition: the recent recall by Longwell Electronics and Hewlett-Packard of 2.5 *million* power cords used on HP printers shows that recalls can and do occur in the ordinary course of business and without causing irreparable harm to manufacturers or retail outlets.

- The retailers on RADAR's list sell a wide range of products, not just radar detectors, therefore, any decrease in sales of radar detectors will not have the devastating effect on their retail businesses that RADAR asserts. Most of these retailers are VSAT customers whose service may be interrupted by radar detector interference.
- Retailers have a tremendous economic incentive to ensure that they have certified radar detectors in stock for retail sale to their customers. The retailers listed by RADAR must regularly deal with recalls of a variety of consumer products, and presumably have mechanisms in place that allow them to respond routinely to product recalls without disrupting their businesses or emptying their shelves of all similar products that they still are able to sell. RADAR's claim that retailers will send all radar detectors, both compliant and non-compliant, back to the manufacturer is unsupported. Sorting out RADAR's estimated 100,000 units at 21,474 retail establishments (an average of 5 per store) cannot be an undue burden.
- RADAR has not identified the makes, models or serial numbers of the non-compliant radar detectors on the market, or which retailers actually carry those devices. Based on RADAR's assertion that 80% of radar detectors made today are compliant, the impact of prohibiting the sale of an estimated 100,000 units cannot be significant.
- RADAR will have had eight weeks to identify the serial and model numbers of the offending radar detectors and coordinate a recall with its retailers. Nothing that RADAR has presented in the record indicates that complying with this timeframe is infeasible.

4. The cases where the Commission phased in regulations of consumer devices over a longer timeframe are readily distinguishable:

- CB radios caused interference only into land mobile communications in the 30 MHz band. In that case, the Commission did not identify far reaching economic effects of interference into thousands of businesses nationwide, as is the case with radar detector interference into satellite operations. The Commission's prompt application of its new rules regulating radar detectors is reasonable given the magnitude of the harm demonstrated in this case.
- In none of the cases cited by RADAR did the Commission identify emissions at levels that were significantly in excess of the Part 15 limits. As noted in the First Report and Order, the emissions from radar detectors are up to 200 times greater than the Part 15

limits for unlicensed *transmitters* that operate above 960 MHz.

- In all cases cited by RADAR, the interfering devices had to be redesigned and manufactured in a manner not contemplated before. The Commission's implementation of a shorter timeframe in the case of radar detectors is justified because the radar detector industry has previously manufactured radar detectors that did not sweep into the 11.7-12.2 GHz band. Not only does the industry know how to design and manufacture a compliant radar detector, by RADAR's own assertion, its members are now 80% compliant in the case of currently manufactured devices today.
- In the case of computing devices and scanners, a very wide range of devices needed to be redesigned and manufactured. The wide variation in devices requiring modification may have justified a longer implementation schedule. In the instant case, the Commission is dealing with only one type of device, a radar detector, which (i) previously was manufactured to be compliant in the 11.7-12.2 GHz band, and (ii) is asserted to be compliant in 80% of the devices made today. Thus, the deadlines adopted in the First Report and Order are appropriate under the circumstances, and the burden is appropriate given the serious harm caused by non-compliant radar detectors.
- RADAR is disingenuous when it claims the industry "[took] prompt affirmative steps to resolve interference" into satellite receivers. All through this proceeding, RADAR denied there was an issue and blamed satellite companies for poor receiver design and antenna siting. The Commission's willingness to regulate radar detectors is very likely the main reason that radar detectors are again being designed to avoid the 11.7-12.2 GHz band.

In conclusion:

- It is critical that the Commission prevent non-compliant radar detectors from continuing to cause harmful interference into licensed satellite operations.
- Radar detectors present a significant interference threat throughout the entire satellite downlink part of the Ku band (11.7-12.2 GHz).
- Extending the Commission's August 28, 2002 manufacturing and import deadline, or its September 27, 2002 marketing deadline, would exacerbate the current problem caused by unlicensed, non-compliant radar detectors.
- Selective product recalls are common in retailing and are routinely managed without disrupting retail businesses.
- The radar detector manufacturers and retailers had adequate notice of this proceeding. No one responded to the Commission's request for comment on the timeframe needed to comply with possible rules imposing radar detector emission limits. No excuse has been provided for failing to raise these issues in a timely

fashion or for retailers' failing to participate in this proceeding at an earlier stage.

- The Commission's decision is a necessary and appropriate means to resolve the interference problem created by non-compliant radar detectors.

Summary of Radar Detector Emission Measurements

Brand	Model	Date Purchased	Production Release	FSS Receive Band IX	FSS Transmit Band IX	Maximum Emission Level at 3 meters in Reported Frequency Bands	Measurement Entity	Available Today	Part 15 Compliant
Cobra	6050LE	1/17/02	3/1/01	11.7 - 11.813 GHz	No	37,757 uV/m	Hughes Network Systems	yes	no
Cobra	9220WX	5/20/02	1/1/01	11.8 - 12.17 GHz	No	102,094 uV/m	Hughes Network Systems	yes	no
Cobra	9210	5/20/02	8/1/01	No	No	< 500 uV/m	Hughes Network Systems	yes	yes
Cobra	ESD9100		2001	11.77 - 12.17 GHz	Not Reported (NR)	88,105 uV/m	FCC Laboratories	yes	no
Cobra	9110		6/1/02	No	NR	N/A	MicroSpace Comm. Corp.	yes	yes
Cobra Count							5		
BelTronics	Express			10.87 - 11.99 GHz	NR	36,728 uV/m	FCC Laboratories	yes	no
BelTronics	Bel 950			No	14.35 - 15.52	177,828 uV/m	FCC Laboratories	yes	yes
BelTronics	525i	Circa 1995	1995	No	No	< 500 uV/m	Hughes Network Systems	no	yes
BelTronics	Express 936	5/16/02	2001	11.714 - 11.777 GHz	No	14,571 uV/m	Hughes Network Systems	yes	no
BelTronics	Express 916	1/17/02	2001	11.73 - 11.775 GHz	No	7647 uV/m	Hughes Network Systems	yes	no
BelTronics	Express 940	5/14/02	2002	No	14.2 to 14.5 GHz	8453 uV/m	Hughes Network Systems	yes	yes
BelTronics Count							6		
Whistler	1770		2001	Yes	NR	> 500 uV/m	MicroSpace Comm. Corp.	yes	no
Whistler	1740		2/1/02	No	NR	N/A	MicroSpace Comm. Corp.	yes	yes
Whistler	1765		2/1/02	No	NR	N/A	MicroSpace Comm. Corp.	yes	yes
Whistler	1660		1999	Yes	NR	> 500 uV/m	MicroSpace Comm. Corp.	yes	no
Whistler	1730	1/17/02	2000	11.7 - 11.805 GHz	No	51,582 uV/m	Hughes Network Systems	yes	no
Whistler	1750	5/14/02	2/1/02	No	No	< 500 uV/m	Hughes Network Systems	yes	yes
Whistler	1630	5/14/02	1999	No	No	< 500 uV/m	Hughes Network Systems	yes	yes
Whistler	1650		1999	11.44 - 11.81 GHz	NR	162,181 uV/m	FCC Laboratories	yes	no
Whistler Count							8		
Escort	Solo Cordless	10/5/02	2001	11.753 - 11.816 GHz	No	19769 uV/m	Hughes Network Systems	yes	no
Escort	Passport 7500		1998	11.4 - 11.78 GHz	NR	33,113 uV/m	FCC Laboratories	yes	no
Escort Count							2		
Phantom II				11.46 - 11.82 GHz	NR	356,737 uV/m	FCC Laboratories	yes	no
Phantom II Count							1		
Uniden	LRD 737		1999	11.07 - 12.13 GHz	NR	188,365 uV/m	FCC Laboratories	yes	no
Uniden Count							1		

